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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Dominic Walsh

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WASHINGTON, DC 20006-1021

EXAMINER

HEVEY, JOHN A

ART UNIT

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1793

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,348	Applicant(s) WALSH ET AL.	
	Examiner JOHN A. HEVEY	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34,35,37,38,40-42 and 47-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34,35,37,38,40-42 and 47-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Application

Claims 47-50 are new, claims 1-33, 36, 39, and 43-46 are cancelled. Claims 34-35, 37-38, 40-42, and 47-50 are pending and presented for examination.

Previous rejections have been withdrawn in view of applicant amendment to the claims, however, upon further search and consideration new grounds of rejection are put forth as presented below.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 34-35, 37-38, 40-42, and 47-50 rejected under 35 U.S.C. 103(a) as being unpatentable over Hoshino et al. (US6117592, of record) further in view of Gutjahr et al. (US4273582) and Jones et al. (US4937210).

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In regards to claims 34-35, Hoshino teaches a method of making a porous metallic material comprising steps for forming an aqueous mixture of one or more metal powders, an organic solvent, a water-soluble resin binder selected from methyl cellulose, hydroxypropylmethyl cellulose, hydroxyethylmethyl cellulose, carboxymethyl cellulose ammonium, ethyl cellulose, and polyvinyl alcohol, a plasticizer, and water, and steps for forming a molded product, burning, and sintering (see example 1, columns 8-9). The reference teaches compositions comprising single metal powders including examples of nickel, copper, silver, gold, and others, as well as multiple-metal powders (relevant to claim 35) including examples such as Cu-Ni, Ni-Cr-Fe-Mn, and Ag-Cu (see Tables 1 and 2, col. 19). Hoshino fails to specifically teach a water-soluble metal salt and fails to teach dextran as a water-soluble carbohydrate polymer.

Gutjahr teaches a method of making a porous metal sintered body comprising forming a mixture of one or more metal powders such as copper, silver, manganese, cobalt, iron and nickel in elemental or soluble salt form (see col 2, ln 8-25). It would have been obvious to one of ordinary skill in the art to modify the teachings of Hoshino to select a metal powder comprising a soluble metal salt as taught by Gutjahr, in order to enhance the quality of the porous body, thus maximizing the industrial applicability of the invention.

Jones teaches a method of making porous inorganic bodies, and teaches the use of viscosifying agents such as polyvinyl alcohol, dextran, starch, hydroxyethyl cellulose (see col 3, ln 51-60). Thus, one of ordinary skill would

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appreciate that the resin binder compounds taught by Hoshino and the viscosifying agents taught by Jones are substitutes, as they comprise many of the same compounds and serve substantially the same purpose. It would have been obvious to one of ordinary skill to substitute the binder compound of Hoshino such as PVA with dextran as taught by Jones, in order to enhance the formation of a porous body.

In regards to claims 37-38, Hoshino teaches steps for burning at 300-700 C, and sintering at 800-1400 C (see col. 7, lines 43-50). Thus, the reference teaches ranges which overlap with the claimed ranges. It would have been obvious to one of ordinary skill in the art to select from the portion of the overlapping ranges. Overlapping ranges have been held to establish prima facie obviousness (see MPEP 2144.05).

In regards to claims 40-41, Hoshino teaches a composition including 0.5 - 20 weight% water-soluble binder and 5 - 80 weight% metal powder (see col. 2, lines 24-26). Thus, the reference teaches ranges which overlap with the claimed ranges. It would have been obvious to one of ordinary skill in the art to select from the portion of the overlapping ranges. Overlapping ranges have been held to establish prima facie obviousness (see MPEP 2144.05).

In regards to claim 42, the references differ in that they do not teach a specific molecular weight of dextran as required by the instant claims. However, Hoshino and Jones establish that the content of a water-soluble binder compound is a result effective variable influencing the viscosity and shape

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retention of the material (see for example Hoshino, col 5, ln 43-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to choose the instantly claimed ranges through routine optimization, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. One would have been motivated to do so in order to obtain the best results from the porous article and maximize the industrial applicability of the invention.

In regards to claims 47-48, Hoshino teaches a porous sponge-like material with rod-shaped crystals having a width reading on the instant ranges (see figure 10B). Furthermore, as the references teach substantially the same materials and method of making it would necessarily follow that they possess the same properties.

In regards to claims 49-50, Hoshino and Gutjahr teach metal powders comprising noble metals and transition metals such as silver and nickel (see above).

Response to Arguments

4. Applicant's arguments with respect to claims 34-35, 37-38, 40-42, and 47-50 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN A. HEVEY whose telephone number is (571)270-3594. The examiner can normally be reached on Monday - Friday 8:00 AM to 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jessica Ward can be reached on 571-272-1223. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. A. H./
Examiner, Art Unit 1793

/Kevin P. Kerns/
Primary Examiner, Art Unit 1793